

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
11 August 2005 (11.08.2005)

PCT

(10) International Publication Number
WO 2005/074145 A1

(51) International Patent Classification⁷: **H03M 7/30,**
H04N 1/41

(21) International Application Number:
PCT/JP2005/001289

(22) International Filing Date: 24 January 2005 (24.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2004-024485 30 January 2004 (30.01.2004) JP
2004-239792 19 August 2004 (19.08.2004) JP

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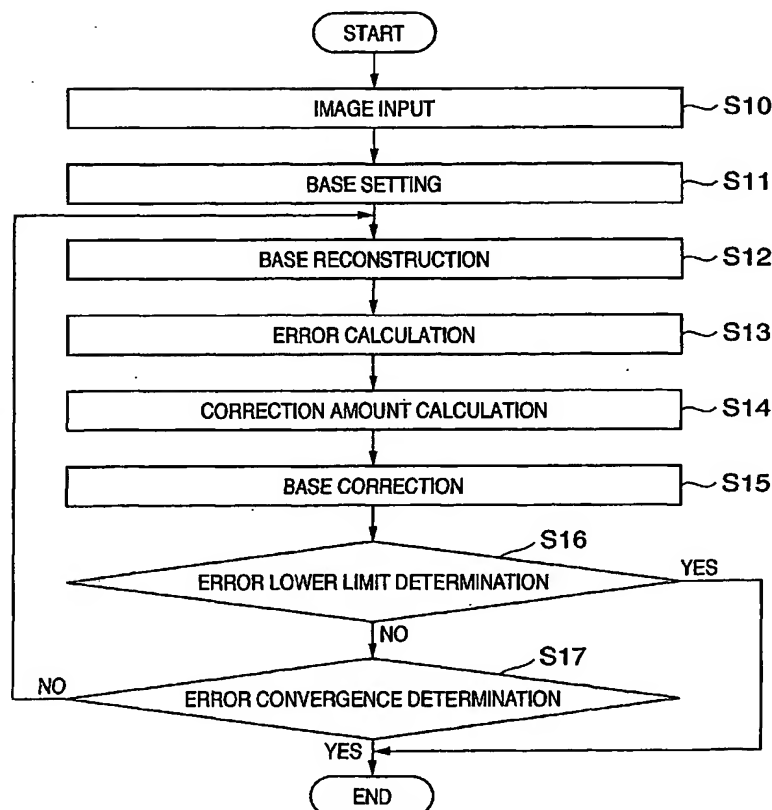
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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH,

[Continued on next page]

(54) Title: CODING METHOD AND APPARATUS, AND COMPUTER PROGRAM AND COMPUTER-READABLE STORAGE MEDIUM



(57) Abstract: Data in multidimensional space such as a two-dimensional image is encoded with high efficiency. Further, as two-dimensional data can be decomposed to one-dimensional bases, the problem of wiring for two-dimensional parallelizing in a convolution arithmetic unit can be solved. For this purpose, two-dimensional image data $f(x,y)$ to be encoded is inputted, and one-dimensional adaptive bases $X(x), Y(y)$ representing the two-dimensional image are obtained. Next, a reconstructed image is generated based on the one-dimensional adaptive bases, and the one-dimensional adaptive bases are corrected based on an error E between the reconstructed image and the input image. The correction is repeated until the error E is reduced.

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PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

(84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,

Published:

— *with international search report*

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